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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,088	10/10/2003	Hamid Mahmood	71493-1198 /aba	9198

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EXAMINER	
ABELSON, RONALD B	
ART UNIT	**PAPER NUMBER**
2616	

MAIL DATE	DELIVERY MODE
05/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/682,088	MAHMOOD ET AL.	
	Examiner	Art Unit	
	Ronald Abelson	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/16/05, 6/23/04, 11/28/03*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10/10/2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 6/23/04, 11/28/03
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-8, 11-18, and 21-29 rejected under 35 U.S.C. 103(a) as being unpatentable over McAllister (US 2001/0010681) in view of Shoaib (US 7,161,914).

Regarding claims 1, 14, 24, 27, and 28, McAllister teaches selecting a route via the network for packets from the terminal in dependence upon the network information (quality of service, [0007]) and information dependent upon communications between the terminal and at least one of the nodes (link cost, [0007]); and supplying packets with information relating to the selected route (source node, together with computed primary path, are included in a connection setup message generated at source node, [0007]).

McAllister is silent on wireless, furthermore the reference is silent on receiving, via a respective wireless link from at least one of a plurality of wireless access nodes forming a network, network information / available bandwidth, relating to links between the nodes.

Shoaib teaches wireless (fig. 1, WCDMA, col. 1 lines 44-50), furthermore Shoaib teaches receiving, via a respective wireless link from at least one of a plurality of wireless access nodes forming a network, network information / available

bandwidth, relating to links between the nodes (col. 2 lines 4-12). Note, the applicant defines available bandwidth as network information (spec: pg. 5 lines 25-28).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of McAllister by having incorporating the algorithm in a connection oriented wireless network wherein the mobile station is informed of the available bandwidth in the system, as shown by Shoaib. This modification can be performed as shown by Shoaib. This modification would benefit the system by informing the mobile of the current network information / available bandwidth, that the mobile needs to make its routing decision.

Regarding claim 2, in the terminal, monitoring a status of the selected route (McAllister: connection setup message cranked back, that node attempts to compute alternate path, [0009]). Note, the connection setup message may be cranked back all the way to the source.

Regarding claims 3, 15, in the terminal, receiving and monitoring network information to determine a status of the selected route (McAllister: connection setup message cranked back, that node attempts to compute alternate path, [0009]) and,

selectively in dependence upon the determined status, selecting a new route via the network for packets from the terminal (McAllister: compute an alternate path, [0009]).

Regarding claims 4, 16, the step of selecting a new route comprises selecting a route including wireless communications between the terminal and a different one of the nodes. Note, the system of the combination is wireless (Shoaib: fig. 1, WCDMA, col. 1 lines 44-50).

Regarding claims 5, 6, the links between the nodes comprise wireless communications links. Note, the system of the combination is wireless (Shoaib: fig. 1, WCDMA, col. 1 lines 44-50).

Regarding claims 7, 17, 21, 23, network information comprises Quality-of-Service parameters (McAllister: quality of service, [0007]).

Regarding claims 8, 18, the network information comprises an available bandwidth for each link between nodes in at least a

part of the network (Shoaib: QoS, available bandwidth, col. 2 lines 4-12).

Regarding claims 13, 26, a plurality of wireless access nodes (Shoaib: base stations, col. 2 lines 4-12), a plurality of links between nodes for packet communications in the network, and at least one wireless communications terminal (Shoaib: mobile device, col. 2 lines 4-12) as claimed in claims 12, 25 for wireless communications with the wireless access nodes, the wireless access nodes being arranged for supplying to the terminal said network information relating to links between the nodes (Shoaib: information made available to the mobile device by a location service that continuously updates this information for base stations, col. 2 lines 4-12).

Regarding claims 11, 12, 22, 25, and 29, a wireless communications terminal arranged for operation in accordance with the method of claims 1, 4, 22, 24, and 28 (fig. 1, mobile device, col. 1 lines 44-50).

4. Claims 9 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of McAllister and Shoaib as

applied to claims 6 and 14 above, and further in view of Miernik (US 7,155,215).

Although the combination teaches QoS, the combination is silent on network information comprises a current delay for each link between nodes in at least a part of the network.

Miernik teaches the network information / QoS, comprises a current delay for each link between nodes in at least a part of the network (QoS, delays, connections).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by incorporating a link delay component in determining the QoS for each route, as suggested by Miernik. This modification can be performed in software. This modification would benefit the system since link delay is an integral determinant in the QoS for data being transmitted over a network.

5. Claims 10 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of McAllister and Shoaib as applied to claims 6 and 14 above, and further in view of Seguin (US 7,206,295).

Although the combination teaches QoS, the combination is silent on network information comprises an error rate for each link between nodes in at least a part of the network.

Sequin teaches QoS as a function of the error rate (col. 4 lines 25-28).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by incorporating an error rate component in determining the QoS for each route, as suggested by Sequin. This modification can be performed in software. This modification would benefit the system since the error rate is an integral determinant in the QoS for data being transmitted over a network.

Prior Art of Record

6. Ren (US 20040136321) teaches WCDMA is connection oriented.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization

where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RA

Ronald Abelson
Examiner
Art Unit 2616

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